



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/708,955	04/02/2004	Anthony A. Harrington	BOE 0480 PA (04-0016)	2954

27256 7590 02/24/2005

ARTZ & ARTZ, P.C.
28333 TELEGRAPH RD.
SUITE 250
SOUTHFIELD, MI 48034

EXAMINER

HOLZEN, STEPHEN A

ART UNIT	PAPER NUMBER
----------	--------------

3644

DATE MAILED: 02/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/708,955

Applicant(s)

HARRINGTON ET AL.

Examiner

Stephen A. Holzen

Art Unit

3644

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) 27-31 is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 April 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>4/2/2004</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Objections

1. Claims 1, 3, 9, and 23 are objected to because of the following informalities:

Claim 1, Line 12: the phrase "along a of longitudinal" should be --along a longitudinal--.

Claim 3, Line 2: the phrase "member is a selected" should be --member is selected--.

Claim 9, Line 2: the phrase "member is a selected" should be --member is selected--.

Claim 23, line 29: the line ends in a period, however the applicant meant to end the line with a semicolon ";".

Appropriate correction is required.

Specification

2. The disclosure is objected to because of the following informalities:

- ¶0034-35 describes an apparatus other than the flow chart of Figure 6.

Figure 6 does not show the reference numbers in these paragraphs

- ¶0036-42 describes Figure 6, but the applicant has referenced Figure 7.
- There is no Figure 7. (Nor is there a brief description thereof)

Appropriate correction is required.

Drawings

3. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "gantry device for moving said lift device and said object carrier generally along...a second axis disposed generally perpendicular to said first axis" must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement-drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Art Unit: 3644

4. The drawings are objected to under 37 CFR 1.83(a) because they fail to show the details referenced in ¶0034-0035 as described in the specification. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

5. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "#46" has been used to designate both "the single gantry lift device" and "the lift device". At first glance it would appear that #46 actually refers to

Art Unit: 3644

the same element, however since the claims detail that the "single-unit gantry-lift device...includes a lift device", then it is clear that in fact the "lift device" is not the same as the "single-unit gantry-lift", however instead only a component thereof. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

6. The drawings are objected to because the specification describes 7 figures, however only 6 figures are in the application as filed. Furthermore, the specification refers to Figure 6 in paragraphs 0053-0054, however none of the items listed in these paragraphs actually refer to the flow chart (figure 6). Figure 7 is described in the spec as a flow chart, however there is no figure 7. The examiner believes that the applicant forgot to submit a drawing (Figure 7) and also accidentally misnumbered the figures. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version

Art Unit: 3644

of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

7. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

8. Claims 1-26 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The applicant has not enabled one skilled in the art to use the gantry device to move the carrier along a second axis (#28). Instead the applicant has enabled a

Art Unit: 3644

gantry device (#44) for moving the object and carrier along a first axis (#26) and then allowing a crew member to manually push the galley cart into the storage area (#30) along the second axis (#28). Note: Gantry does not move along axis #28.

The examiner thinks that ¶0034 and ¶0035 might enable the invention as claimed, however since the applicant has not provided the correct figures, the examiner can not determine what the lateral extension members (66) and sleeves (68) are or what their purpose is.

9. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

10. Claims 4 and 10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The examiner can not determine the scope of these claim:

The applicant has used the language "at least one of". The examiner has viewed this limitation as a Markush group, however the applicant has not used the proper Markush group language (the group consisting of....).

If the applicant actually intended to claim at least one of EACH element the applicant rephrase the claim to specifically claim the combination of each of these elements.

If the applicant meant to claim only one element from the group the applicant is required to use proper Markush language.

Claim Rejections - 35 USC § 102

11. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

12. Claims 1-4 and 7-11 are rejected under 35 U.S.C. 102(b) as being anticipated by Luria (5,159,994). Luria discloses an integrated transport system for moving an object in an aircraft between a main cabin (where the passengers sit) and an overhead cabin (illustrated in Figure 1, should be noted that the right side of the figure illustrates that the delivery system is in an overhead cabin, while the left side of the figure is illustrated in a cut-away form, and therefor it does not appear to illustrate the upper cabin, however it should be appreciated that an overhead cabin is necessarily present.) Luria further discloses a shaft in connection between the overhead and main cabin (#86 illustrated in Figure 15 shows a "shaft" between the belts #86a, and #86b),

a single-unit gantry-lift device (#26 and #80 are a single device) including an object carrier (87, the tray) for receiving the object (food selection), said object carrier (87) having at least one restraint member (tray has a lip illustrated in Figure 14) for securing the object in said object carrier (87) and preventing the object from tipping (tray lips necessarily accomplish this function), wherein said single-unit gantry lift device further includes a lift device (#86 "vertical conveyer") for moving said object carrier generally along a longitudinal axis of the shaft

Art Unit: 3644

(between belts #86a,b) and a gantry device (#26) for moving said object carrier generally along at least one of said first axis of said overhead cabin (#26 moves parallel to the longitudinal axis of the aisles in the overhead cabin), and a second axis disposed generally perpendicular to said first axis (extractor #82 moves the food articles out of #26 in an axis that is perpendicular to the axis of the aisles),

wherein the main cabin is a main deck galley (see Col. 2, lines 36-37), and said overhead cabin being an overhead galley ("upper galley"),

wherein said lift device includes a belt mechanism (#86a)

wherein said at least one restraint member is at least one plate member (the lip of the tray #87),

wherein the gantry device (#26) includes a pair of rails (#22, #24) coupled to said overhead cabin of said aircraft (see Figure 2), said rails (although not directly holding the tray #87 do in fact suspend the tray and prevent the tray from tipping) utilized for moving the tray generally along the first axis of the overhead cabin (the axis is parallel to the aisle),

wherein the pair of rails and said lift device have at least one of a rolling member (wheel #62) and a sliding member (slip connector #76) coupled therebetween for moving said object carrier generally along said first axis of said overhead cabin.

Allowable Subject Matter

13. Claims 27-31 are allowed.

Art Unit: 3644

14. Claims 14, 18 and 23 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 1st paragraph, set forth in this Office action.

15. Claims 5, 6, 12, 13, 15-17, 19-22 and 24-26 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 1st paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

16. The following is an examiner's statement of reasons for allowance:

Re- Claims 5 and 12: Luria does not disclose a manually operated gantry and lift device.

Re – Claim 6 and 13: Luria does not disclose a galley cart or a refreshment cart.

Re – Claims 27-31: The prior art does not disclose the method steps in either the loading or unloading sequence necessary for the proper operation of the method claim. Specifically the prior art does not disclose actuating a gantry device along at least one of a first axis of the overhead cabin. Luria (as applied above) comes close to this method, however the sequences required for loading and off loading necessary for the proper operation of this claim and Luria's own invention do not match.

Art Unit: 3644

Re – Claim 14, 18: The prior art does not render obvious a single unit gantry lift device having a lifting device and a gantry device for moving objects through the shaft between the main and overhead cabins.

Re – Claim 23: The prior art does not render obvious a transport system having lifting device and a gantry device for moving an object through a shaft defined by a bi-level galley modules that extends between a main deck and an overhead deck.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled “Comments on Statement of Reasons for Allowance.”

17. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Luria (6,663,043) does not disclose a gantry, and instead discloses a displaceable suspension member (30) that drags the container across the floor and into alignment with a shaft (6). It would not have been obvious to use this device in an overhead cabin because the invention necessarily teaches away from dragging the container above a hole, in the horizontal dividers between cabins, because the container would fall down the shaft (or would at least be

biased by gravity to do so), thus creating a dangerous situation for those underneath.

Sankrithi (6,305,643) does not disclose a gantry or a gantry type system. Instead Sankrithi hints at a container that may include an upper rail system from which the carts could be hung and translated to provide manual access to the container (see Col. 4, lines 37-40). Sankrithi further hints at "some type of automated cart handling components (not shown)....to shuffle used carts into and out of the container....". Furthermore Sankrithi's system is in a lower deck and would require a complete modification of the container system before being capable of being used in an overhead cabin (see the orientation of the containers illustrated in figure 7 to Oki.)

Oki (2002/0148928) teaches a multi-level cabin that functions as a cargo cabin or a passenger cabin that uses hatchways to load/off-load the plane. Oki makes no mention of a gantry type system and instead uses elevators and conveyor belts for moving cargo and "wagons". Oki goes further to disclose an embodiment that delivers "wagons" (#413) that contain foodstuffs. However Oki teaches that the wagons are directly inserted into the wagon container from below, and are not moved in any directional axis. (see Figure 23).

Art Unit: 3644

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen A. Holzen whose telephone number is 703-308-2484. The examiner can normally be reached on M-F 7:30 - 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Teri Luu can be reached on 703 305-7421. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Sah



TERI PHAM LUU
SUPERVISORY
PRIMARY EXAMINER